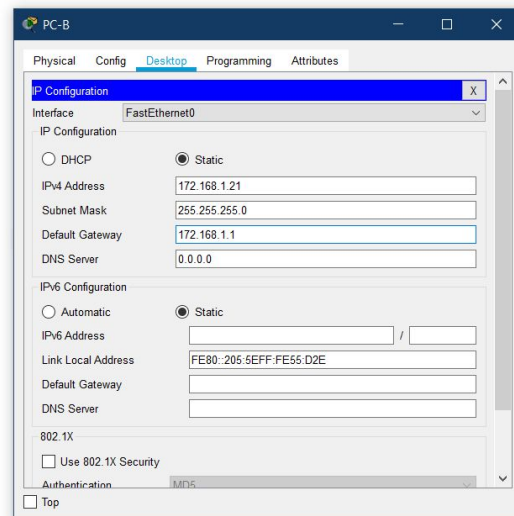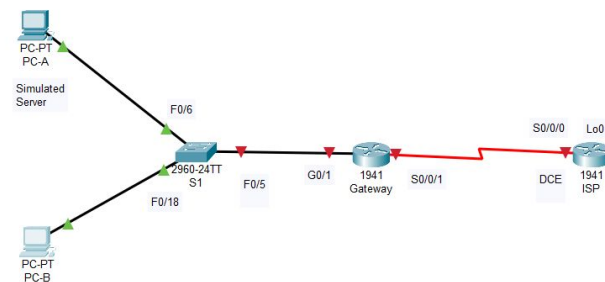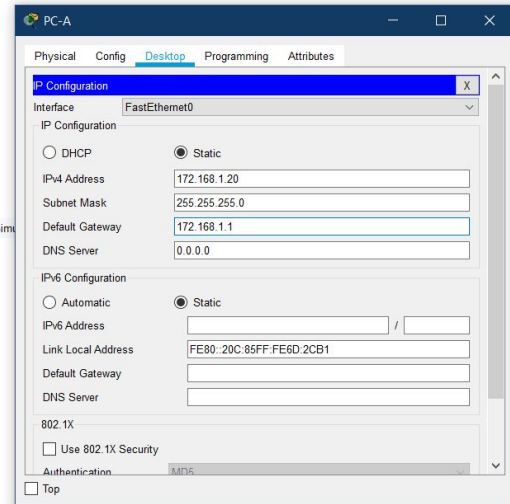Rucha Nargunde: 2018130032
Shashank Patel - 2018130036
Chaitya Shah - 2018130046

TASK 1
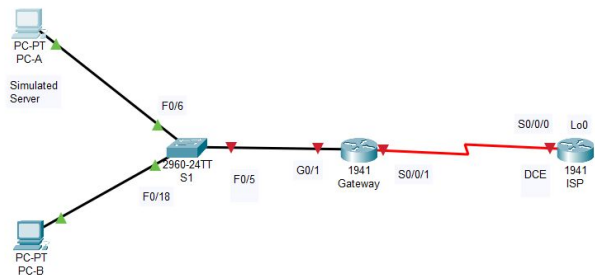
Gateway

Physical Config CLI Attributes

MODULES
- HWIC-1GE-SFP
- HWIC-2T
- HWIC-4ESW
- HWIC-8A
- WIC-Cover
- GLC-LH-SMD

Physical Device View

Zoom In | Original Size | Zoom Out

Customize Icon in Physical View

Customize Icon in Logical View

The HWIC-2T is a Cisco 2-Port Serial High-Speed WAN Interface Card, providing 2 serial ports.

☐ Top

Gateway — □ ×

Physical　Config　CLI　Attributes

IOS Command Line Interface

```
Router#enable
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#no ip domain-lookup
Router(config)#service password-encryption
Router(config)#enable secret class
Router(config)#banner motd #
Enter TEXT message.  End with the character '#'.
Unauthorized access is strictly prohibited. #

Router(config)#line con 0
Router(config-line)#password cisco
Router(config-line)#login
Router(config-line)#logging synchronous
Router(config-line)#line vty 0 4
Router(config-line)#password cisco
Router(config-line)#login
Router(config-line)#
Router(config-line)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
Router#^Z
```

Ctrl+F6 to exit CLI focus　　　　　Copy　　Paste

☐ Top

ISP

Physical Config CLI Attributes

MODULES

HWIC-1GE-SFP
HWIC-2T
HWIC-4ESW
HWIC-8A
WIC-Cover
GLC-LH-SMD

Physical Device View

Zoom In	Original Size	Zoom Out

cisco

Cisco 1941 Series

Customize Icon in Physical View		Customize Icon in Logical View	

The HWIC-1GE-SFP is a single-wide HWIC with one Small Form-Factor Pluggable (SFP) slot. The SFP slot can be populated with Cisco copper and optical Gigabit Ethernet SFPs to provide 1-port Gigabit Ethernet connectivity on all

☐ Top

ISP — □ ✕

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Router>enable
Router#configure
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#no ip domain-lookup
Router(config)#service password-encryption
Router(config)#enable secret class
Router(config)#banner motd #
Enter TEXT message.  End with the character '#'.
Unauthorized access is strictly prohibited. #

Router(config)#line con 0
Router(config-line)#password cisco
Router(config-line)#login
Router(config-line)#logging synchronous
Router(config-line)#line vty 0 4
Router(config-line)#password cisco
Router(config-line)#login
Router(config-line)#
Router(config-line)#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

Gateway

Physical Config CLI Attributes

GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
GigabitEthernet0/0
GigabitEthernet0/1
Serial0/0/0
Serial0/0/1

GigabitEthernet0/1

Port Status   ☐ On
Bandwidth   ◉ 1000 Mbps ○ 100 Mbps ○ 10 Mbps ☑ Auto
Duplex   ◉ Half Duplex ○ Full Duplex ☑ Auto
MAC Address   0010.11B0.4602

IP Configuration
IPv4 Address   172.168.1.1
Subnet Mask   255.255.255.0

Tx Ring Limit   10

Equivalent IOS Commands

```
Gateway(config-if)#ip address
% Incomplete command.
Gateway(config-if)#
Gateway(config-if)#exit
Gateway(config)#interface GigabitEthernet0/1
Gateway(config-if)#ip address 172.168.1.1 255.255.0.0
Gateway(config-if)#
```

☐ Top

Gateway

Physical Config CLI Attributes

GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
GigabitEthernet0/0
GigabitEthernet0/1
Serial0/0/0
Serial0/0/1

Serial0/0/1

Port Status	☐ On
Duplex	◉ Full Duplex
Clock Rate	2000000 ⌄

IP Configuration

IPv4 Address	210.185.201.18
Subnet Mask	255.255.255.252

Tx Ring Limit	10

Equivalent IOS Commands

```
Gateway(config-if)#
Gateway(config-if)#exit
Gateway(config)#interface Serial0/0/1
Gateway(config-if)#ip address 210.185.201.18 255.255.255.0
Gateway(config-if)#ip address 210.185.201.18 255.255.255.252
Gateway(config-if)#ip address 210.185.201.18 255.255.255.252
Gateway(config-if)#
```

☐ Top

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Gateway(config)#interface GigabitEthernet0/1
Gateway(config-if)#
Gateway(config-if)#exit
Gateway(config)#interface Serial0/0/1
Gateway(config-if)#ip address 210.185.201.18 255.255.255.0
Gateway(config-if)#ip address 210.185.201.18 255.255.255.252
Gateway(config-if)#ip address 210.185.201.18 255.255.255.252
Gateway(config-if)#
Gateway(config-if)#
Gateway(config-if)#
Gateway(config-if)#exit
Gateway(config)#exit
Gateway#
%SYS-5-CONFIG_I: Configured from console by console

Gateway#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Gateway#
Gateway#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Gateway(config)#interface Serial0/0/1
Gateway(config-if)#no shutdown
Gateway(config-if)#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

ISP

Physical | Config | CLI | Attributes

GLOBAL
- Settings
- Algorithm Settings

ROUTING
- Static
- RIP

SWITCHING
- VLAN Database

INTERFACE
- GigabitEthernet0/0
- GigabitEthernet0/1
- Serial0/0/0
- Serial0/0/1

Serial0/0/0

Port Status	☐ On
Duplex	◉ Full Duplex
Clock Rate	2000000 ∨

IP Configuration

IPv4 Address	210.185.201.17
Subnet Mask	255.255.255.252

Tx Ring Limit: 10

Equivalent IOS Commands

```
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname ISP
ISP(config)#
ISP(config)#interface Serial0/0/0
ISP(config-if)#ip address 210.185.201.17 255.255.255.0
ISP(config-if)#ip address 210.185.201.17 255.255.255.252
ISP(config-if)#
```

☐ Top

ISP

Physical Config CLI Attributes

IOS Command Line Interface

```
ISP(config)#interface Serial0/0/0
ISP(config-if)#no shutdown
ISP(config-if)#
%LINK-5-CHANGED: Interface Serial0/0/0, changed state to up

ISP(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0,
changed state to up

ISP(config-if)#interface loopback 0

ISP(config-if)#
%LINK-5-CHANGED: Interface Loopback0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0,
changed state to up

ISP(config-if)#ip address 172.31.7.1 255.255.255.255
ISP(config-if)#exit
ISP(config)#exit
ISP#
%SYS-5-CONFIG_I: Configured from console by console

ISP#copy running-config startup-config
Destination filename [startup-config]?
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

Step-5

ISP

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0,
changed state to up

ISP(config-if)#ip address 172.31.7.1 255.255.255.255
ISP(config-if)#exit
ISP(config)#exit
ISP#
%SYS-5-CONFIG_I: Configured from console by console

ISP#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
ISP#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
ISP(config)#username webuser privilege 15 secret webpass
ISP(config)#ip http server
                ^
% Invalid input detected at '^' marker.

ISP(config)#ip http authentication local
                ^
% Invalid input detected at '^' marker.

ISP(config)#
```
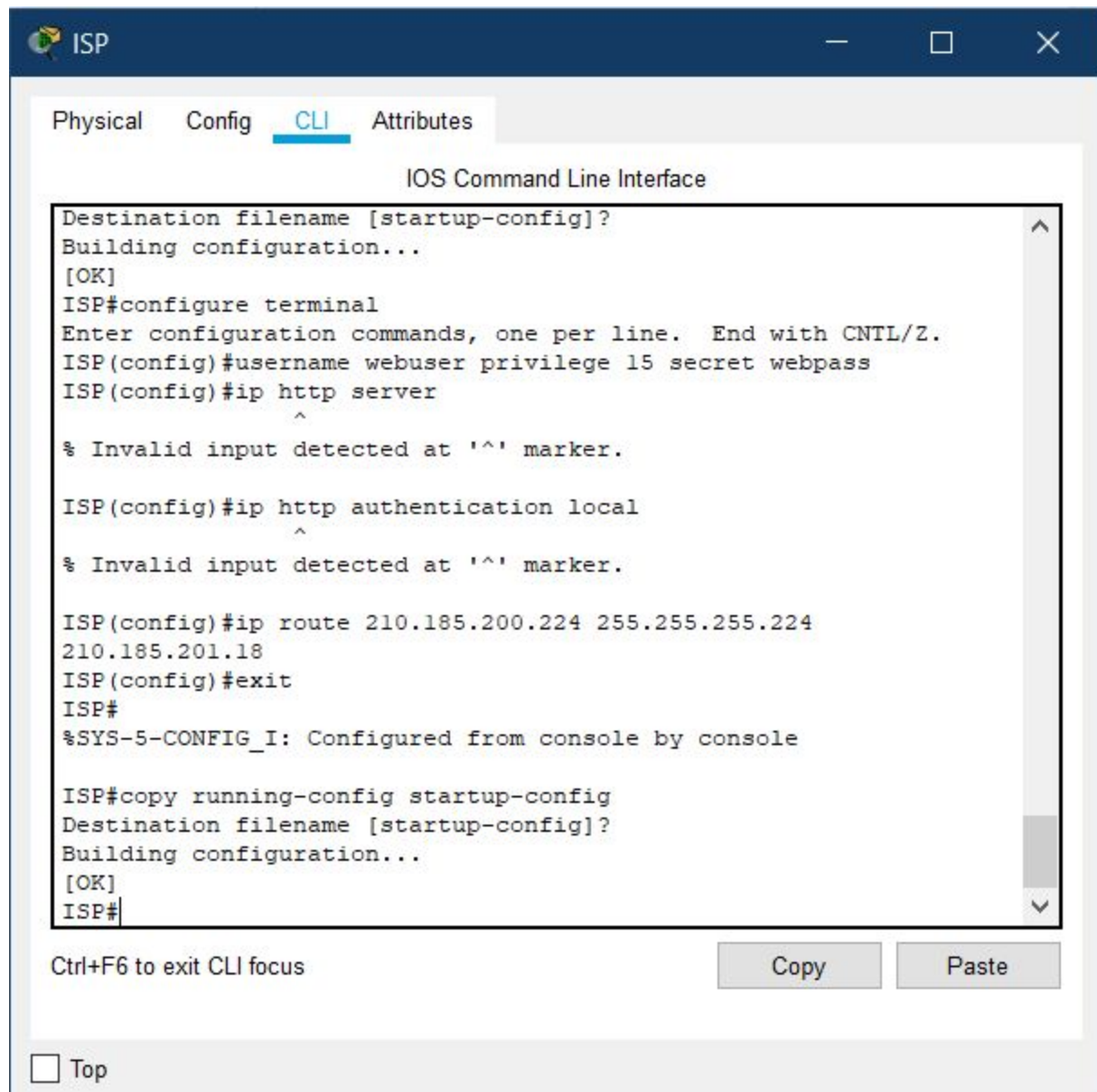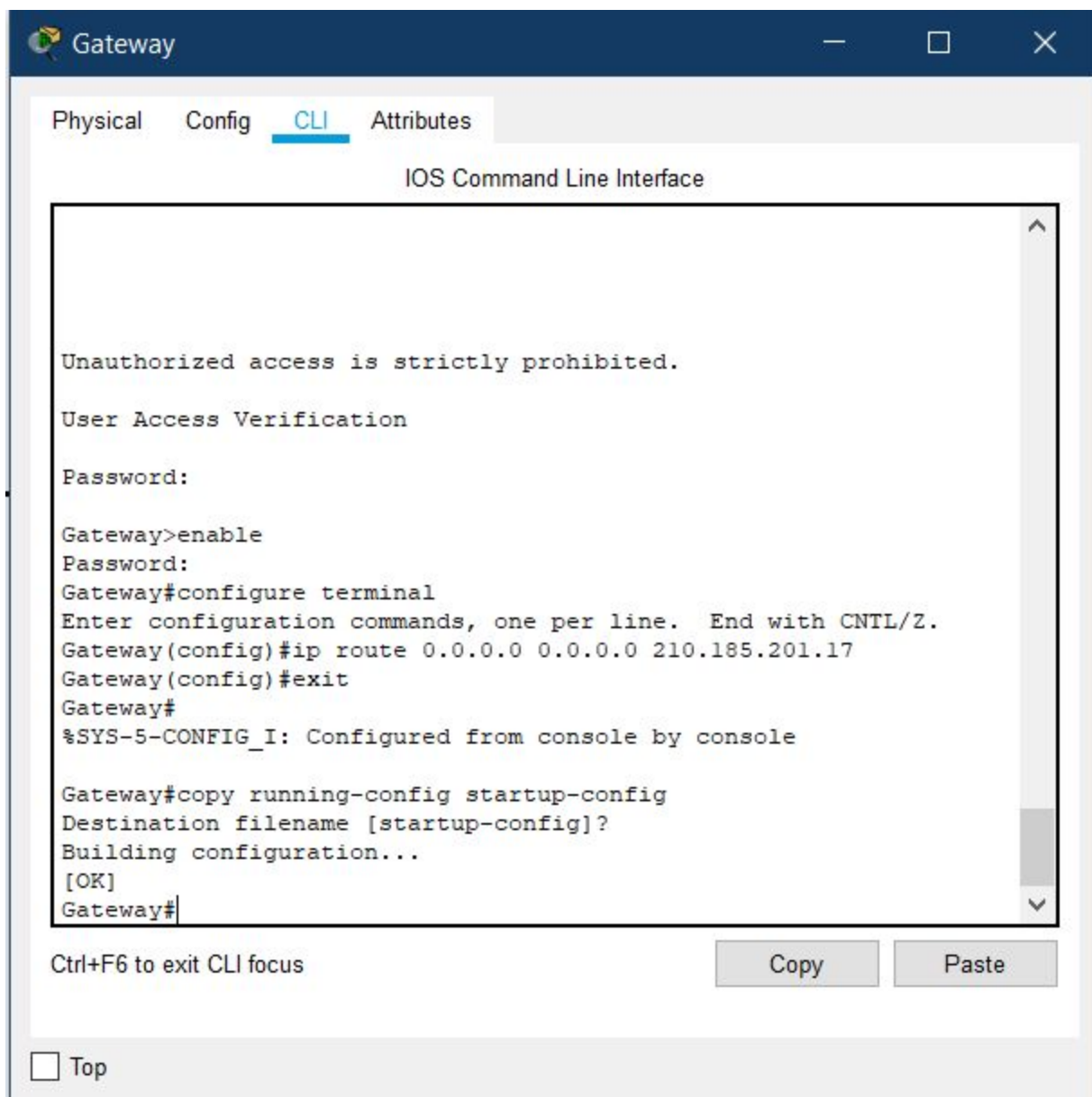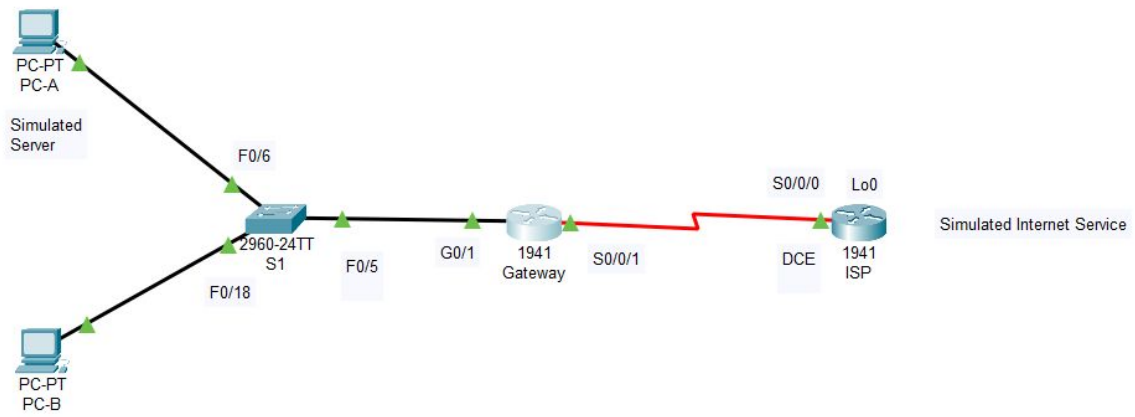
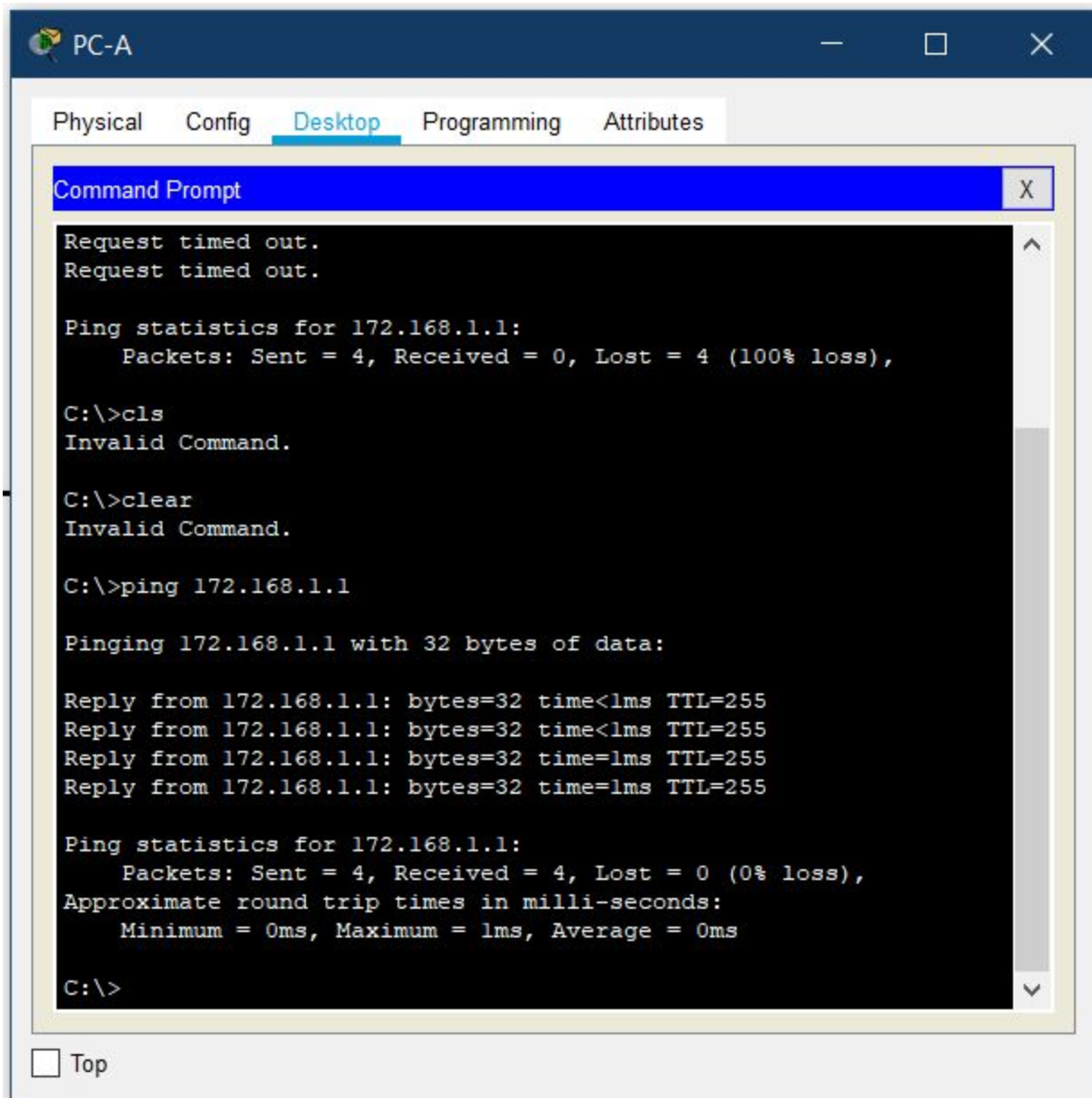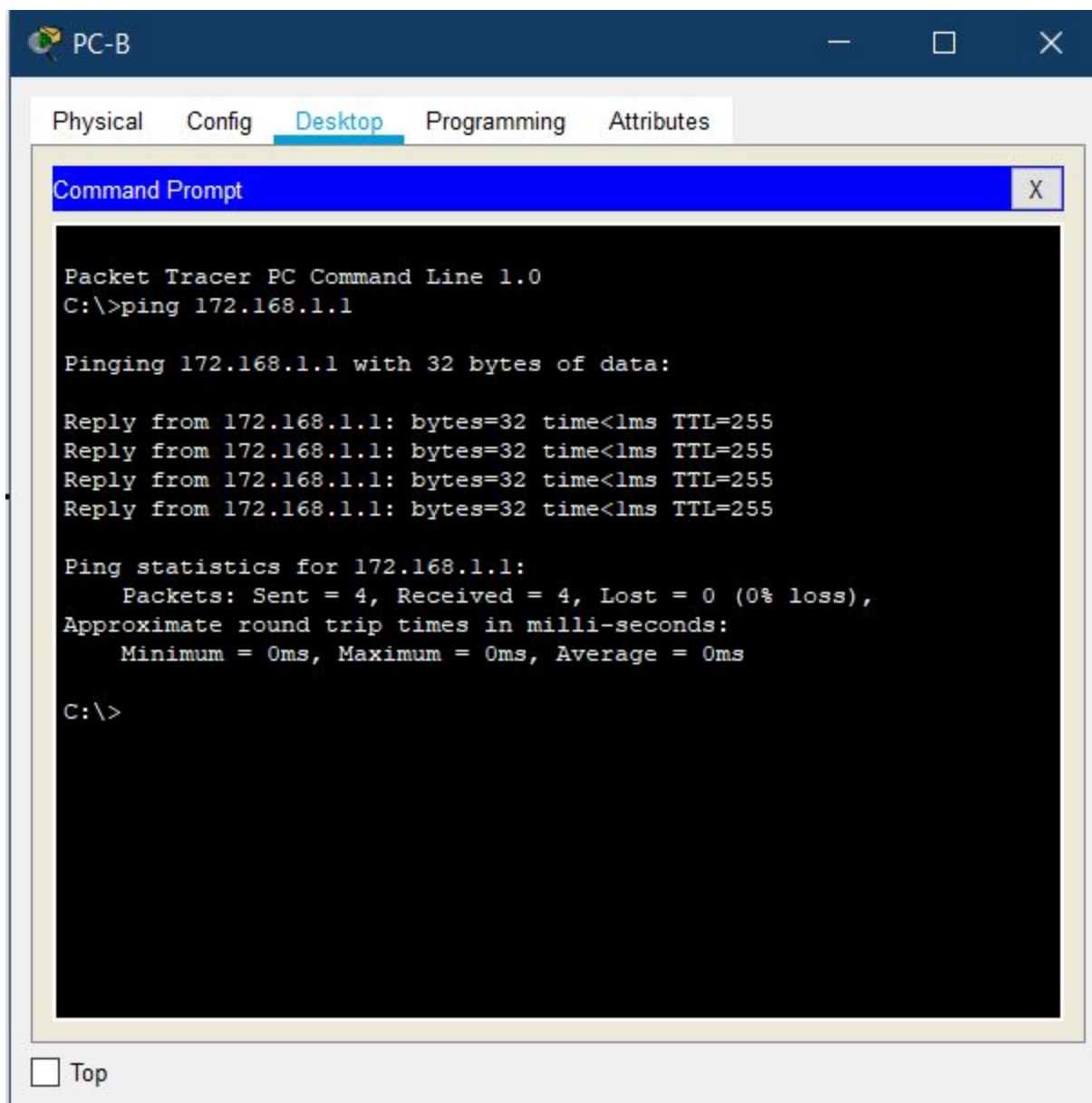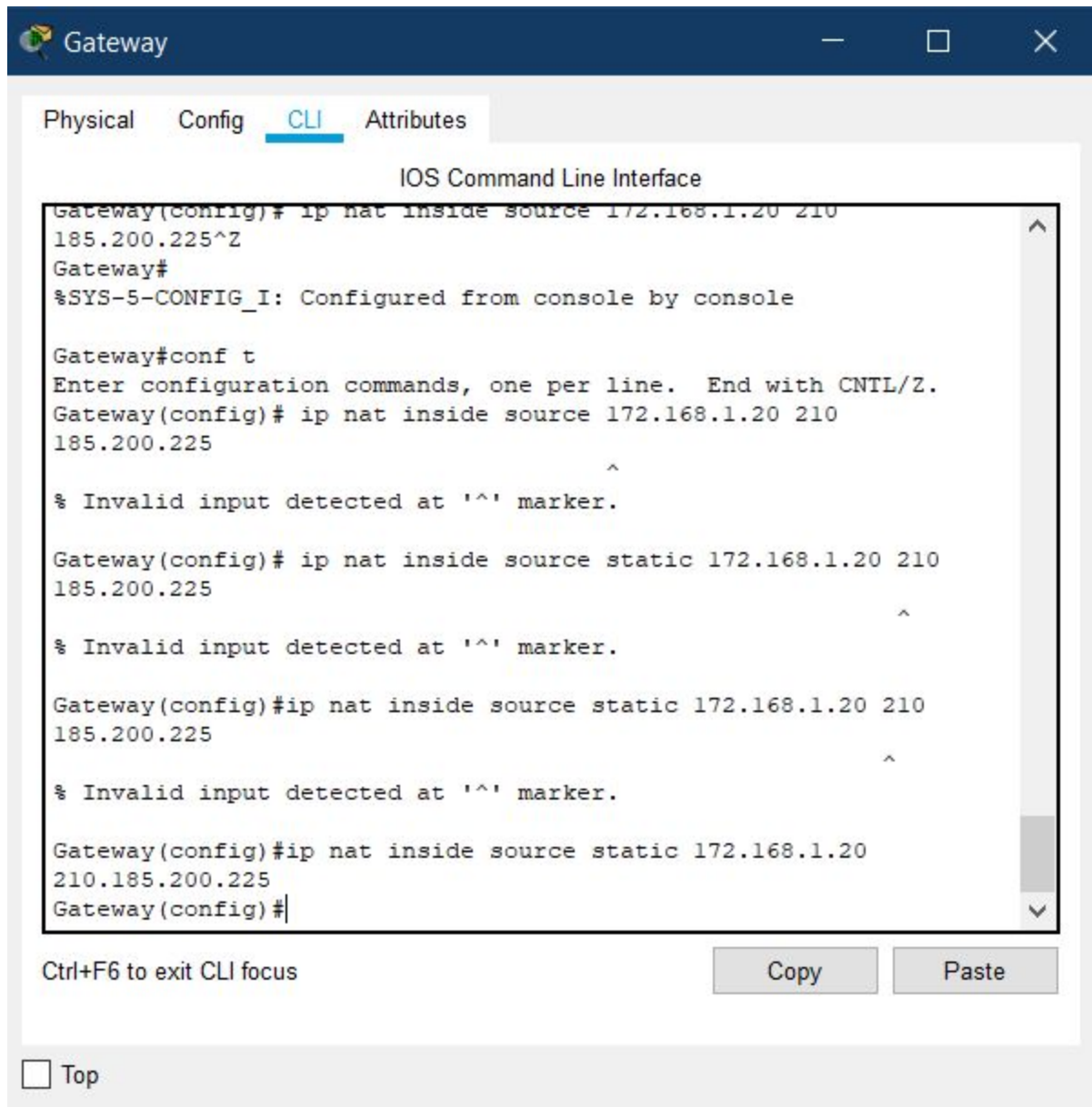Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

Step-6 & step-7

```
ISP                                              —    □    ✕

 Physical    Config    CLI    Attributes

                  IOS Command Line Interface

 Destination filename [startup-config]?
 Building configuration...
 [OK]
 ISP#configure terminal
 Enter configuration commands, one per line.  End with CNTL/Z.
 ISP(config)#username webuser privilege 15 secret webpass
 ISP(config)#ip http server
                ^
 % Invalid input detected at '^' marker.

 ISP(config)#ip http authentication local
                ^
 % Invalid input detected at '^' marker.

 ISP(config)#ip route 210.185.200.224 255.255.255.224
 210.185.201.18
 ISP(config)#exit
 ISP#
 %SYS-5-CONFIG_I: Configured from console by console

 ISP#copy running-config startup-config
 Destination filename [startup-config]?
 Building configuration...
 [OK]
 ISP#

 Ctrl+F6 to exit CLI focus                  Copy      Paste

 ☐ Top
```

Gateway

Physical | Config | CLI | Attributes

IOS Command Line Interface

```
Unauthorized access is strictly prohibited.

User Access Verification

Password:

Gateway>enable
Password:
Gateway#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Gateway(config)#ip route 0.0.0.0 0.0.0.0 210.185.201.17
Gateway(config)#exit
Gateway#
%SYS-5-CONFIG_I: Configured from console by console

Gateway#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Gateway#
```

Ctrl+F6 to exit CLI focus

Copy | Paste

☐ Top

PC-PT
PC-A

Simulated
Server

F0/6

2960-24TT
S1   F0/5   G0/1   1941
                                      Gateway   S0/0/1

F0/18

PC-PT
PC-B

S0/0/0   Lo0

                DCE   1941   Simulated Internet Service
                             ISP

Step-8

PC-B

Physical   Config   Desktop   Programming   Attributes

Command Prompt   X

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.168.1.1

Pinging 172.168.1.1 with 32 bytes of data:

Reply from 172.168.1.1: bytes=32 time<1ms TTL=255
Reply from 172.168.1.1: bytes=32 time<1ms TTL=255
Reply from 172.168.1.1: bytes=32 time<1ms TTL=255
Reply from 172.168.1.1: bytes=32 time<1ms TTL=255

Ping statistics for 172.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

☐ Top

TASK 2

Step-1

Gateway — □ ✕

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Gateway(config)# ip nat inside source 172.168.1.20 210
185.200.225^Z
Gateway#
%SYS-5-CONFIG_I: Configured from console by console

Gateway#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Gateway(config)# ip nat inside source 172.168.1.20 210
185.200.225
                                  ^
% Invalid input detected at '^' marker.

Gateway(config)# ip nat inside source static 172.168.1.20 210
185.200.225
                                                  ^
% Invalid input detected at '^' marker.

Gateway(config)#ip nat inside source static 172.168.1.20 210
185.200.225
                                                  ^
% Invalid input detected at '^' marker.

Gateway(config)#ip nat inside source static 172.168.1.20
210.185.200.225
Gateway(config)#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

Step-2

Step-3

A)

```
Gateway                                          —   □   ✕

Physical   Config   CLI   Attributes

                    IOS Command Line Interface

Gateway(config)#ip nat inside source static 172.168.1.20 210
185.200.225

% Invalid input detected at '^' marker.

Gateway(config)#ip nat inside source static 172.168.1.20
210.185.200.225
Gateway(config)#interface g0/1
Gateway(config-if)#ip nat inside
Gateway(config-if)#interface s0/0/1
Gateway(config-if)#ip nat outside
Gateway(config-if)#
Gateway(config-if)#
Gateway(config-if)#
Gateway(config-if)#exit
Gateway(config)#exit
Gateway#
%SYS-5-CONFIG_I: Configured from console by console

Gateway#show ip nat translations
Pro  Inside global    Inside local      Outside local
Outside global
---  210.185.200.225  172.168.1.20      ---              ---

Gateway#

Ctrl+F6 to exit CLI focus                    Copy        Paste

□ Top
```
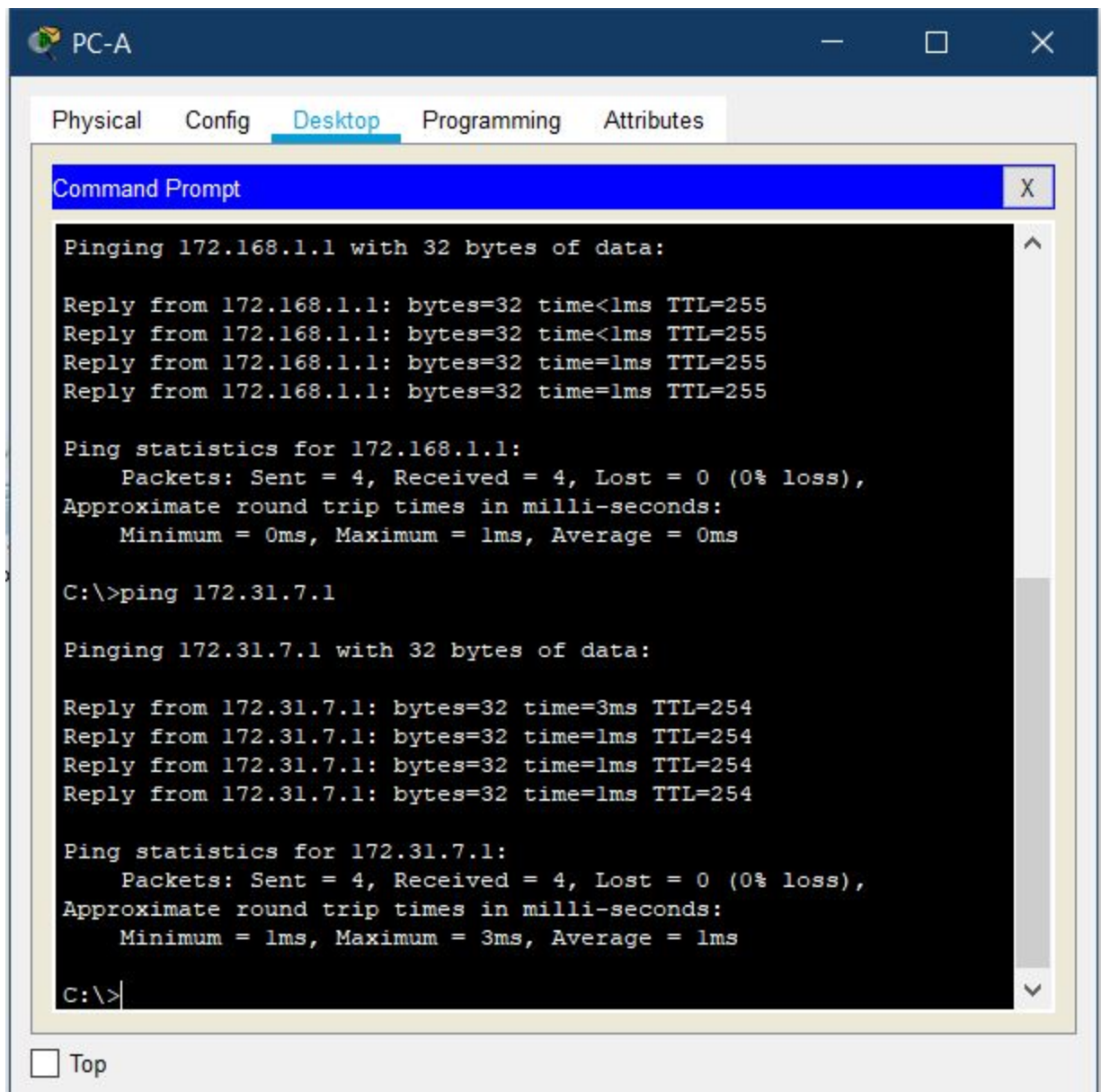
Q.) What is the translation of the inside local host address?
Ans: 172.168.1.20 = 210.185.200.225

B)

Command Prompt

```
Pinging 172.168.1.1 with 32 bytes of data:

Reply from 172.168.1.1: bytes=32 time<1ms TTL=255
Reply from 172.168.1.1: bytes=32 time<1ms TTL=255
Reply from 172.168.1.1: bytes=32 time=1ms TTL=255
Reply from 172.168.1.1: bytes=32 time=1ms TTL=255

Ping statistics for 172.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 172.31.7.1

Pinging 172.31.7.1 with 32 bytes of data:

Reply from 172.31.7.1: bytes=32 time=3ms TTL=254
Reply from 172.31.7.1: bytes=32 time=1ms TTL=254
Reply from 172.31.7.1: bytes=32 time=1ms TTL=254
Reply from 172.31.7.1: bytes=32 time=1ms TTL=254

Ping statistics for 172.31.7.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 3ms, Average = 1ms

C:\>
```
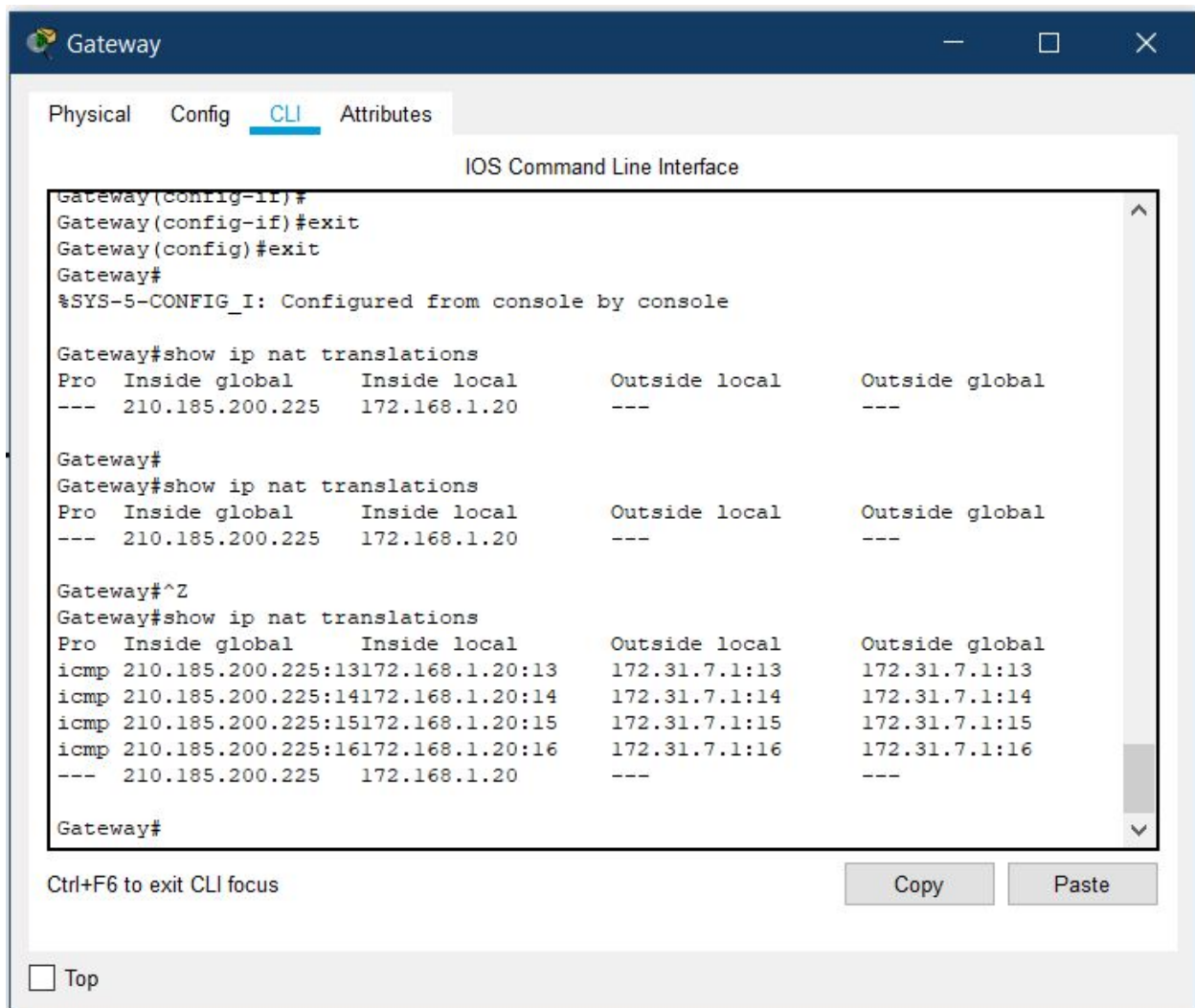
Q) What is the port number for the ICMP exchanges?
Ans: 13,14,15,16

C)

PC-A — □ ✕

Physical   Config   Desktop   Programming   Attributes

Command Prompt   X

```
C:\>ping 172.31.7.1

Pinging 172.31.7.1 with 32 bytes of data:

Reply from 172.31.7.1: bytes=32 time=2ms TTL=254
Reply from 172.31.7.1: bytes=32 time=1ms TTL=254
Reply from 172.31.7.1: bytes=32 time=2ms TTL=254
Reply from 172.31.7.1: bytes=32 time=1ms TTL=254

Ping statistics for 172.31.7.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\>telnet
C:\>telnet 172.31.7.1
Trying 172.31.7.1 ...Open
Unauthorized access is strictly prohibited.


User Access Verification

Password:
ISP>
ISP>
ISP>
```
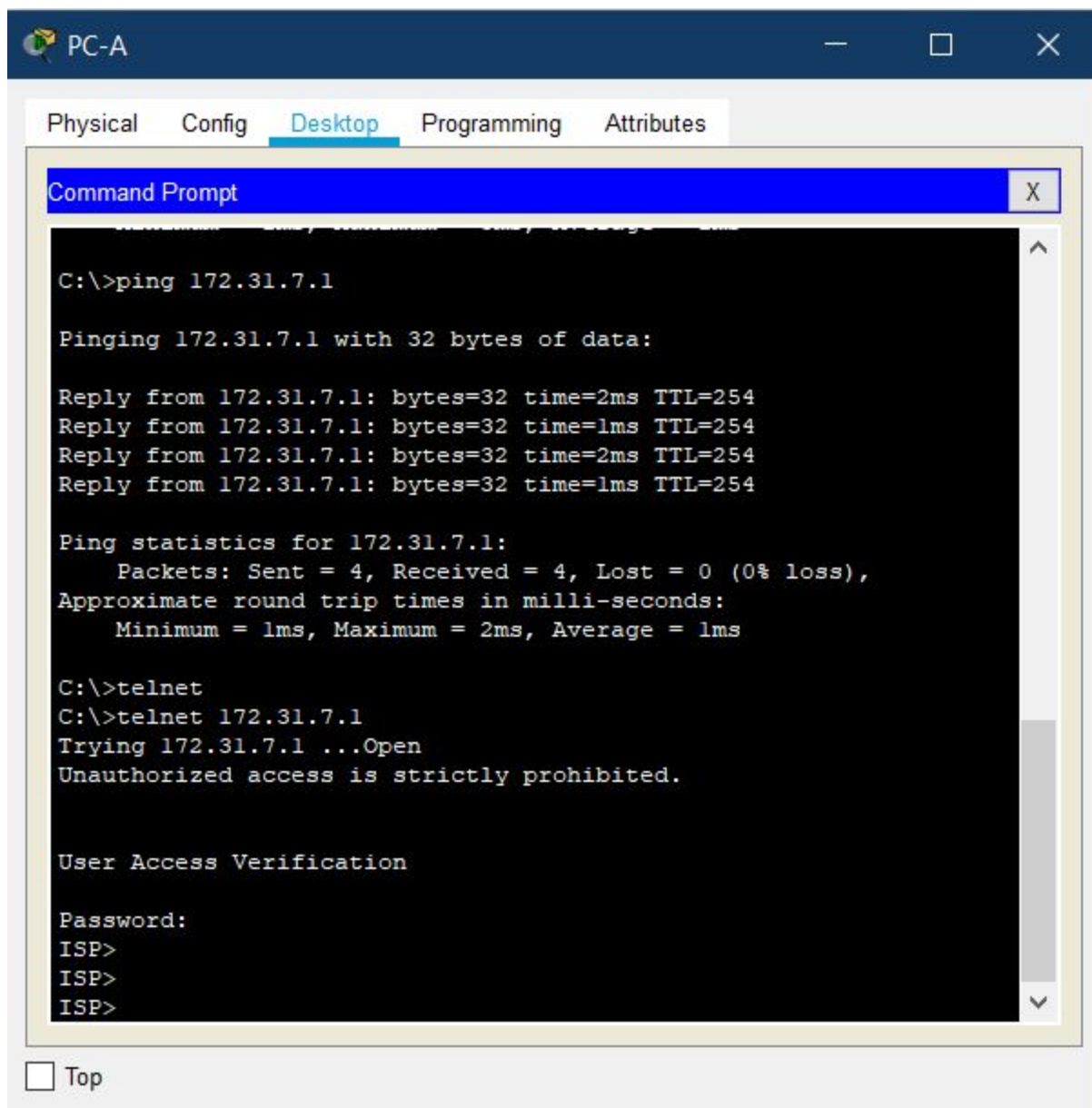
☐ Top

Gateway — □ ×

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Unauthorized access is strictly prohibited.

User Access Verification

Password:

Gateway>enable
Password:
Gateway#show ip nat translations
Pro  Inside global      Inside local       Outside local      Outside global
---  210.185.200.225    172.168.1.20       ---                ---
tcp 210.185.200.225:1025172.168.1.20:1025  172.31.7.1:23       172.31.7.1:23

Gateway#
```
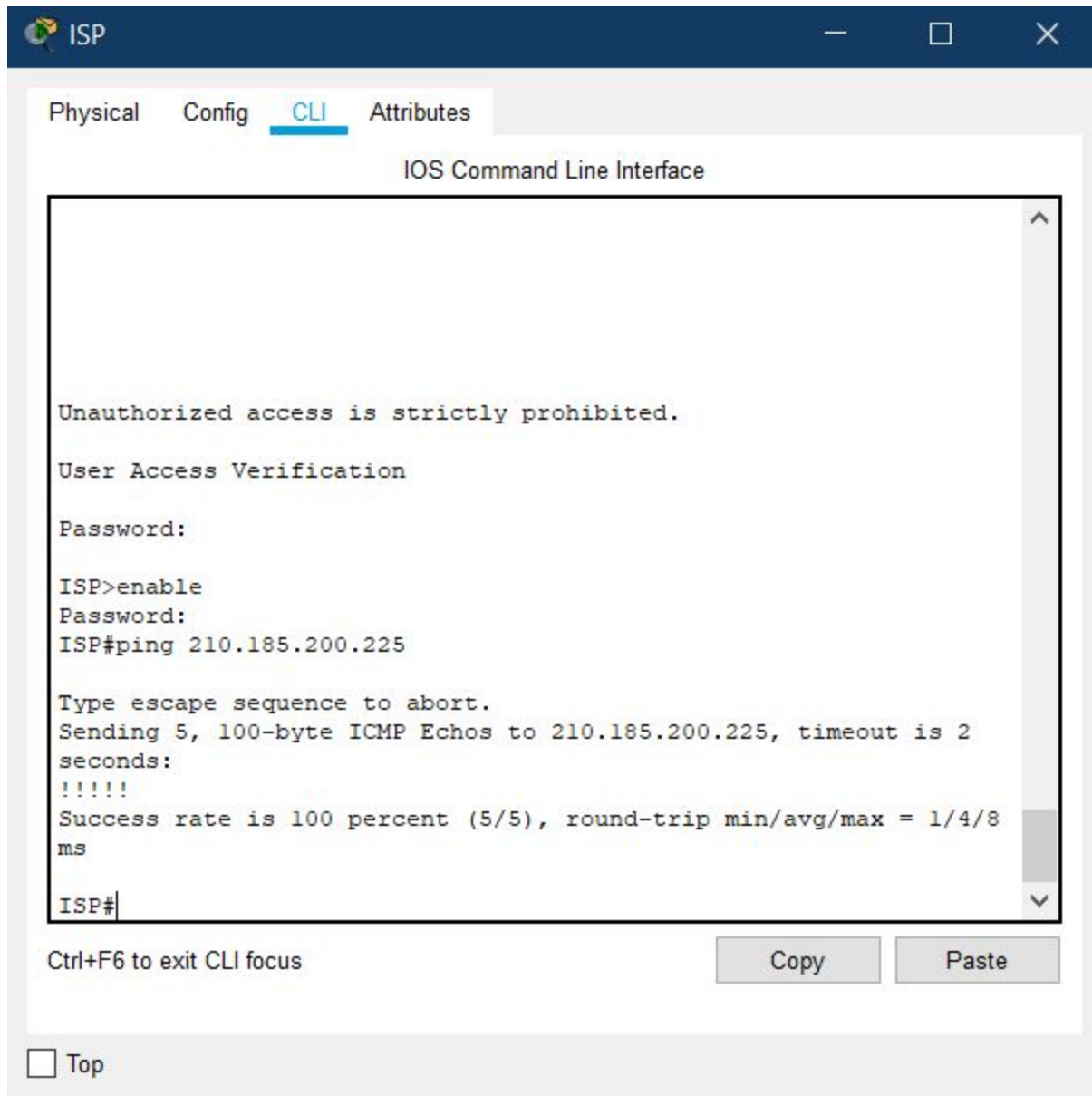
Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

D) ping from ISP to PC-A

ISP

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Unauthorized access is strictly prohibited.

User Access Verification

Password:

ISP>enable
Password:
ISP#ping 210.185.200.225

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 210.185.200.225, timeout is 2
seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/4/8
ms

ISP#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

E)show ip nat translations

F) show ip nat statistics

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Gateway>enable
Password:
Gateway#show ip nat translations
Pro  Inside global     Inside local      Outside local      Outside global
---  210.185.200.225   172.168.1.20      ---                ---
tcp 210.185.200.225:1025172.168.1.20:1025  172.31.7.1:23      172.31.7.1:23

Gateway#show ip nat translations
Pro  Inside global     Inside local      Outside local      Outside global
icmp 210.185.200.225:11172.168.1.20:11    210.185.201.17:11  210.185.201.17:11
icmp 210.185.200.225:12172.168.1.20:12    210.185.201.17:12  210.185.201.17:12
icmp 210.185.200.225:13172.168.1.20:13    210.185.201.17:13  210.185.201.17:13
icmp 210.185.200.225:14172.168.1.20:14    210.185.201.17:14  210.185.201.17:14
icmp 210.185.200.225:15172.168.1.20:15    210.185.201.17:15  210.185.201.17:15
---  210.185.200.225   172.168.1.20      ---                ---
tcp 210.185.200.225:1025172.168.1.20:1025  172.31.7.1:23      172.31.7.1:23

Gateway#show ip nat statistics
Total translations: 2 (1 static, 1 dynamic, 1 extended)
Outside Interfaces: Serial0/0/1
Inside Interfaces: GigabitEthernet0/1
Hits: 53  Misses: 19
Expired translations: 18
Dynamic mappings:
Gateway#
```
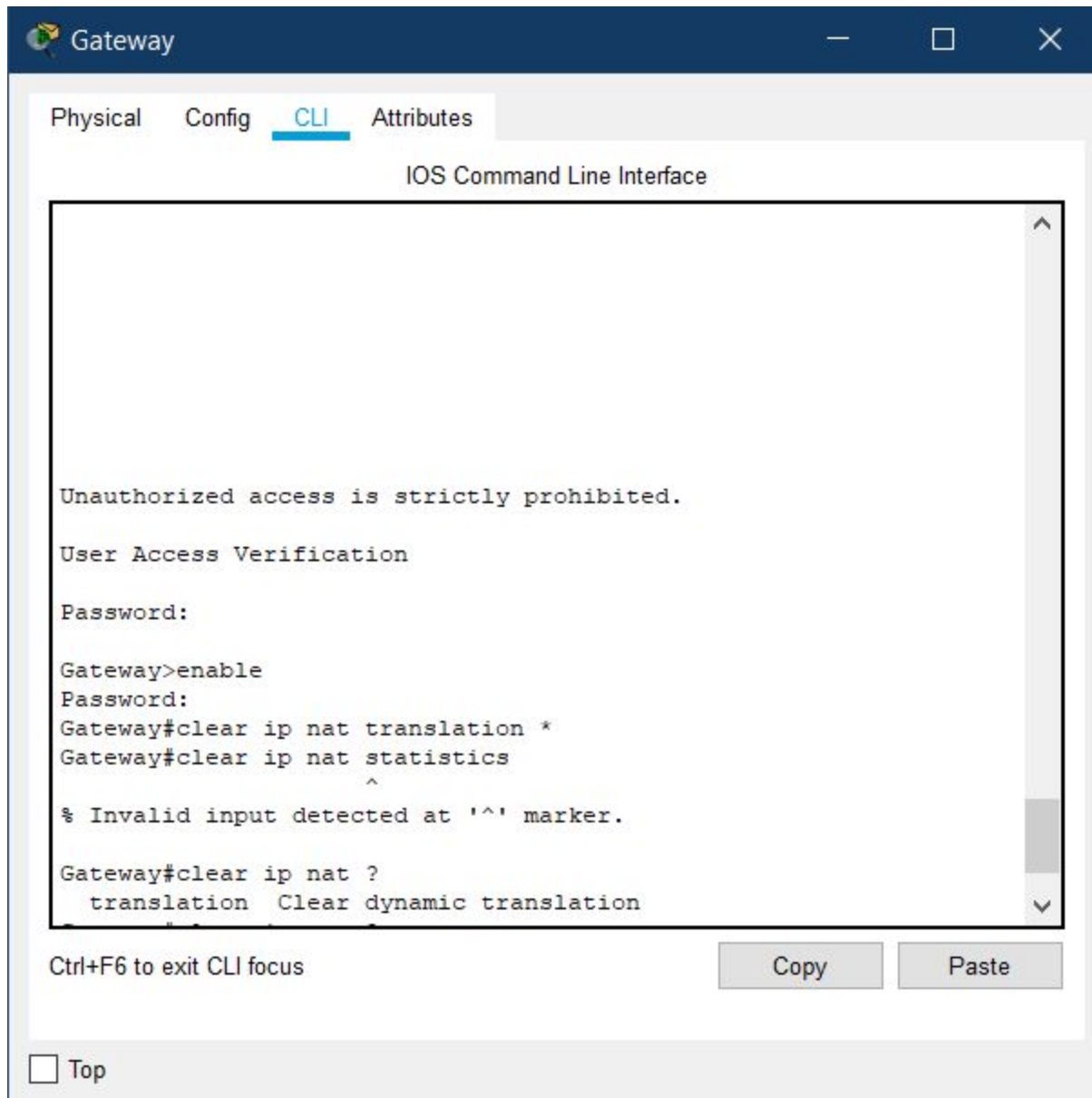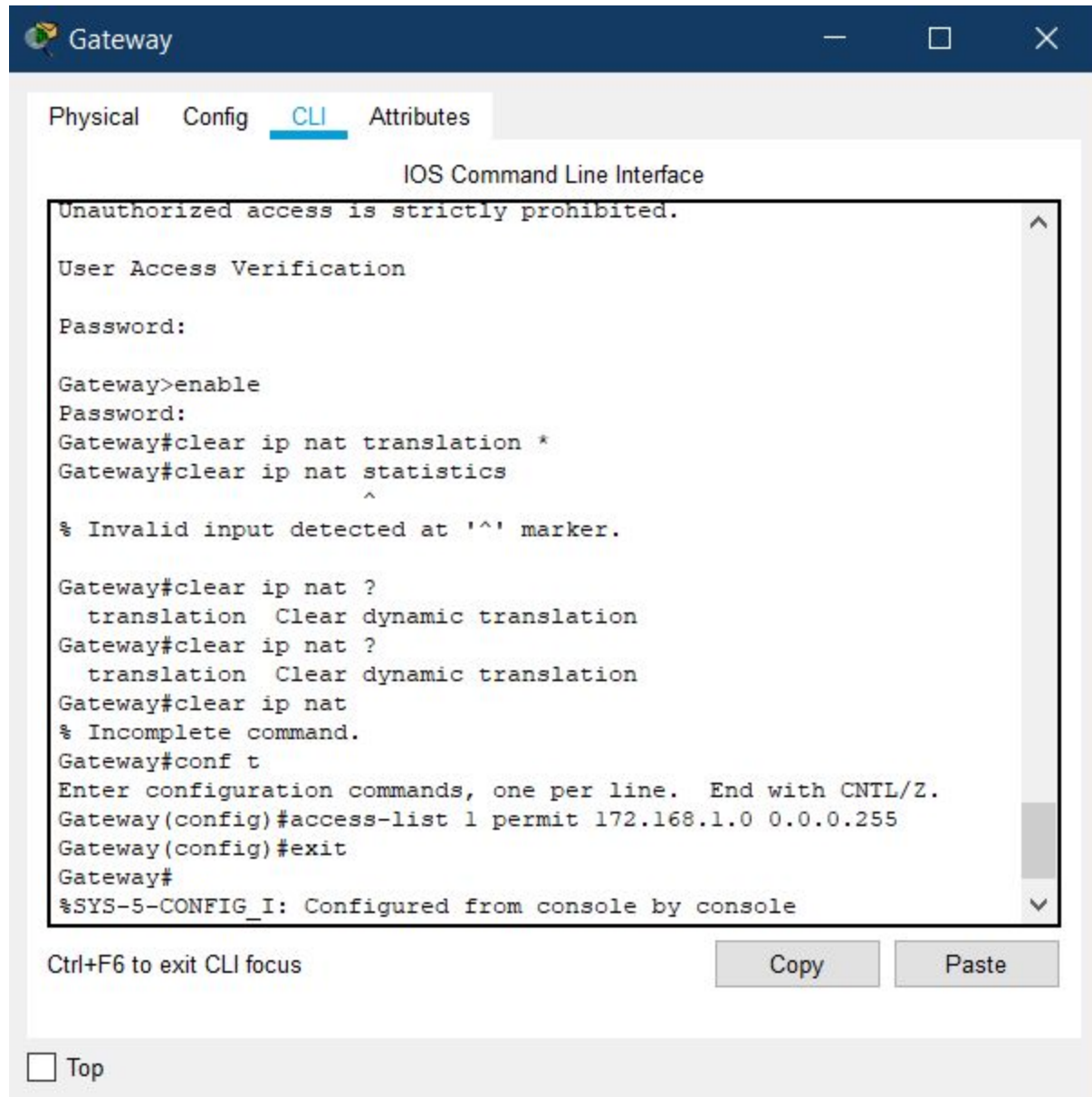
Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

TASK - 3

Step 1:

Step-2

Gateway   —   □   ✕

Physical   Config   CLI   Attributes

IOS Command Line Interface
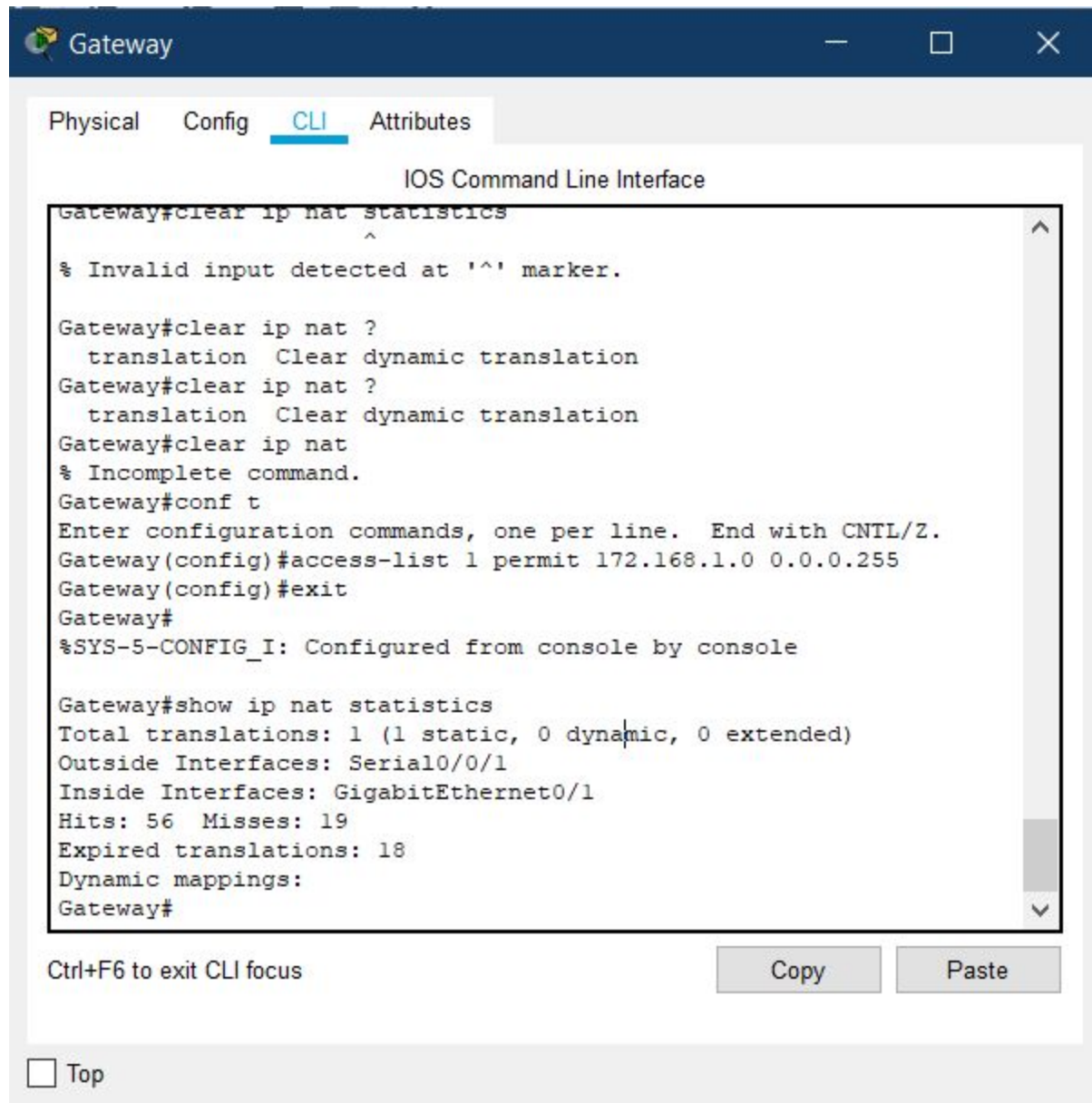
```
Unauthorized access is strictly prohibited.

User Access Verification

Password:

Gateway>enable
Password:
Gateway#clear ip nat translation *
Gateway#clear ip nat statistics
                         ^
% Invalid input detected at '^' marker.

Gateway#clear ip nat ?
  translation  Clear dynamic translation
Gateway#clear ip nat ?
  translation  Clear dynamic translation
Gateway#clear ip nat
% Incomplete command.
Gateway#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Gateway(config)#access-list 1 permit 172.168.1.0 0.0.0.255
Gateway(config)#exit
Gateway#
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

Step-3

Gateway — □ ✕

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Gateway#clear ip nat statistics
                ^
% Invalid input detected at '^' marker.

Gateway#clear ip nat ?
  translation  Clear dynamic translation
Gateway#clear ip nat ?
  translation  Clear dynamic translation
Gateway#clear ip nat
% Incomplete command.
Gateway#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Gateway(config)#access-list 1 permit 172.168.1.0 0.0.0.255
Gateway(config)#exit
Gateway#
%SYS-5-CONFIG_I: Configured from console by console

Gateway#show ip nat statistics
Total translations: 1 (1 static, 0 dynamic, 0 extended)
Outside Interfaces: Serial0/0/1
Inside Interfaces: GigabitEthernet0/1
Hits: 56  Misses: 19
Expired translations: 18
Dynamic mappings:
Gateway#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

Step-4

Gateway — □ ✕

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Unauthorized access is strictly prohibited.

User Access Verification

Password:

Gateway>enable
Password:
Gateway#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Gateway(config)#ip nat pool public_access 210.185.200.242
210.185.200.254 netmask 255.255.255.224
Gateway(config)#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

Step-5

Gateway — □ ✕

Physical   Config   CLI   Attributes

IOS Command Line Interface

Unauthorized access is strictly prohibited.

User Access Verification

Password:

Gateway>enable
Password:
Gateway#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Gateway(config)#ip nat pool public_access 210.185.200.242
210.185.200.254 netmask 255.255.255.224
Gateway(config)#ip nat inside source list 1 pool public_access
Gateway(config)#

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

Step-6

A)

```
  Gateway                                                    —   □   ✕

  Physical   Config   CLI   Attributes

                         IOS Command Line Interface

  User Access Verification

  Password:

  Gateway>enable
  Password:
  Gateway#conf t
  Enter configuration commands, one per line.  End with CNTL/Z.
  Gateway(config)#ip nat pool public_access 210.185.200.242 210.185.200.254 netmask
  255.255.255.224
  Gateway(config)#ip nat inside source list 1 pool public_access
  Gateway(config)#exit
  Gateway#
  %SYS-5-CONFIG_I: Configured from console by console

  Gateway#show ip nat translations
  Pro  Inside global      Inside local      Outside local      Outside global
  icmp 210.185.200.242:5 172.168.1.21:5     172.31.7.1:5       172.31.7.1:5
  icmp 210.185.200.242:6 172.168.1.21:6     172.31.7.1:6       172.31.7.1:6
  icmp 210.185.200.242:7 172.168.1.21:7     172.31.7.1:7       172.31.7.1:7
  icmp 210.185.200.242:8 172.168.1.21:8     172.31.7.1:8       172.31.7.1:8
  ---  210.185.200.225    172.168.1.20      ---                ---

  Gateway#

  Ctrl+F6 to exit CLI focus                           Copy          Paste

  □ Top
```

Q) What is the translation of the inside local address of PC-B
Ans: 172.168.1.21=210.185.200.242
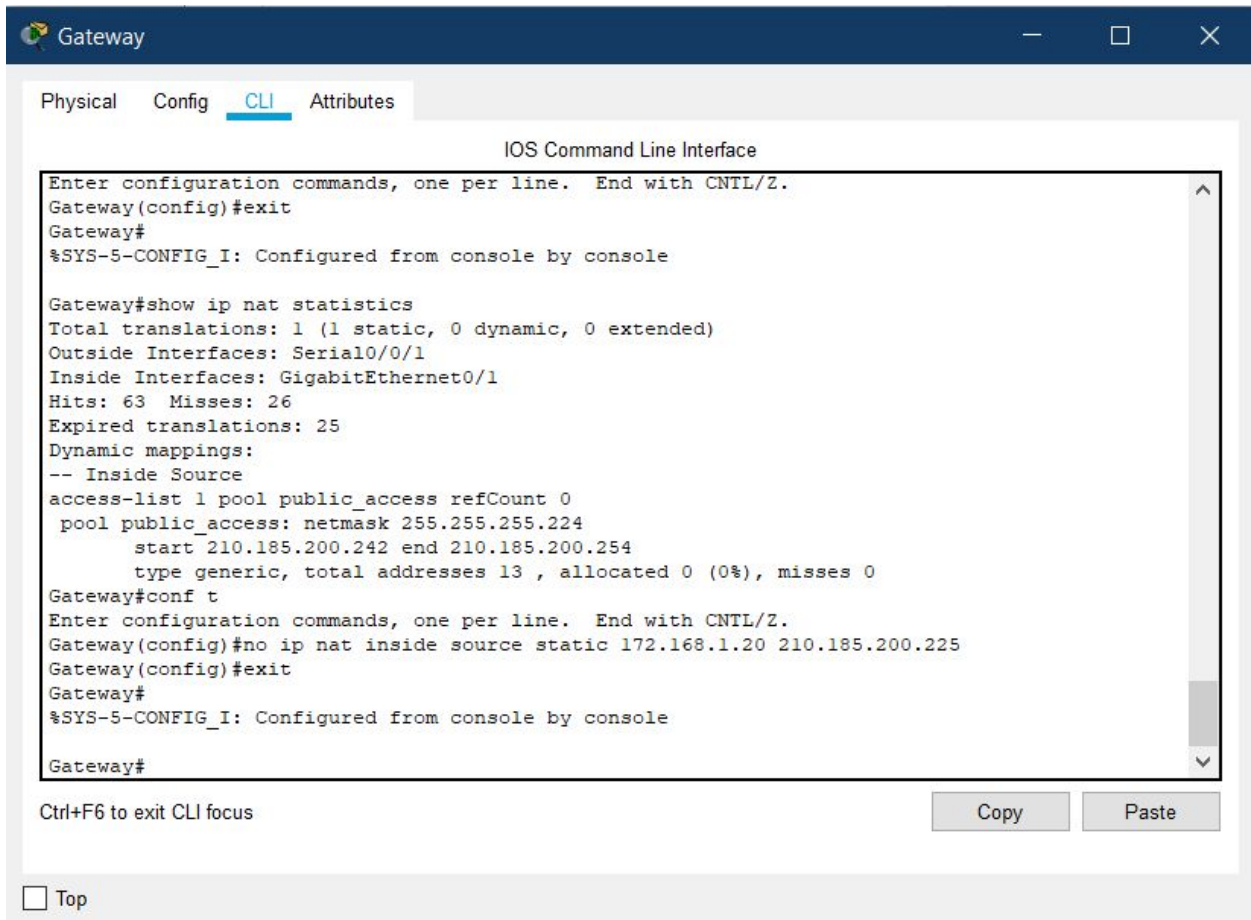
Q) What port numbers are used for the ICMP exchanges
Ans: 5,6,7,8

Step -7

A)

B)

Gateway

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
%SYS-5-CONFIG_I: Configured from console by console

Gateway#show ip nat statistics
Total translations: 1 (1 static, 0 dynamic, 0 extended)
Outside Interfaces: Serial0/0/1
Inside Interfaces: GigabitEthernet0/1
Hits: 63  Misses: 26
Expired translations: 25
Dynamic mappings:
-- Inside Source
access-list 1 pool public_access refCount 0
 pool public_access: netmask 255.255.255.224
        start 210.185.200.242 end 210.185.200.254
        type generic, total addresses 13 , allocated 0 (0%), misses 0
Gateway#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Gateway(config)#no ip nat inside source static 172.168.1.20 210.185.200.225
Gateway(config)#exit
Gateway#
%SYS-5-CONFIG_I: Configured from console by console

Gateway#clear ip nat ?
  translation  Clear dynamic translation
Gateway#clear ip nat translation *
Gateway#
```
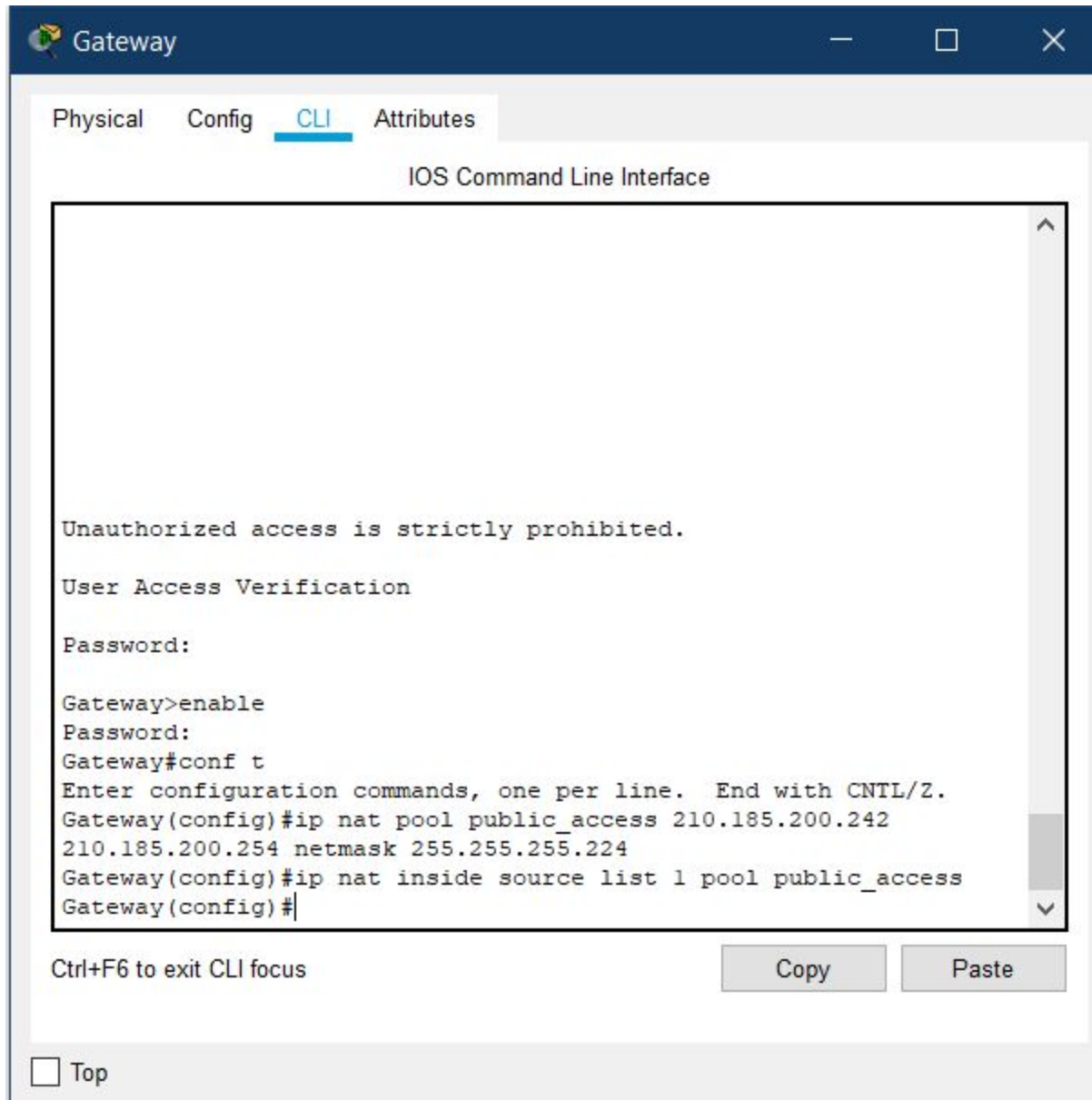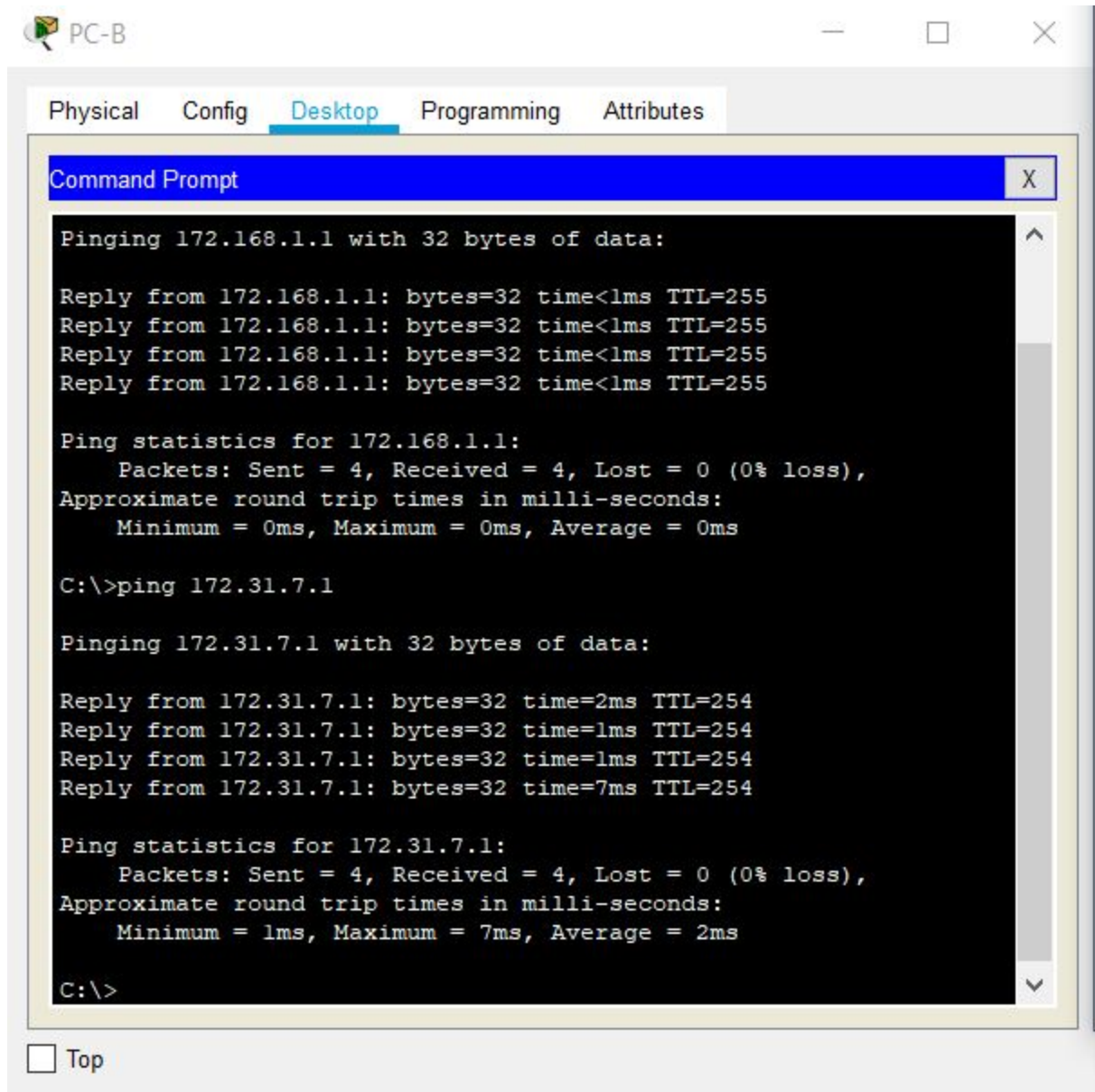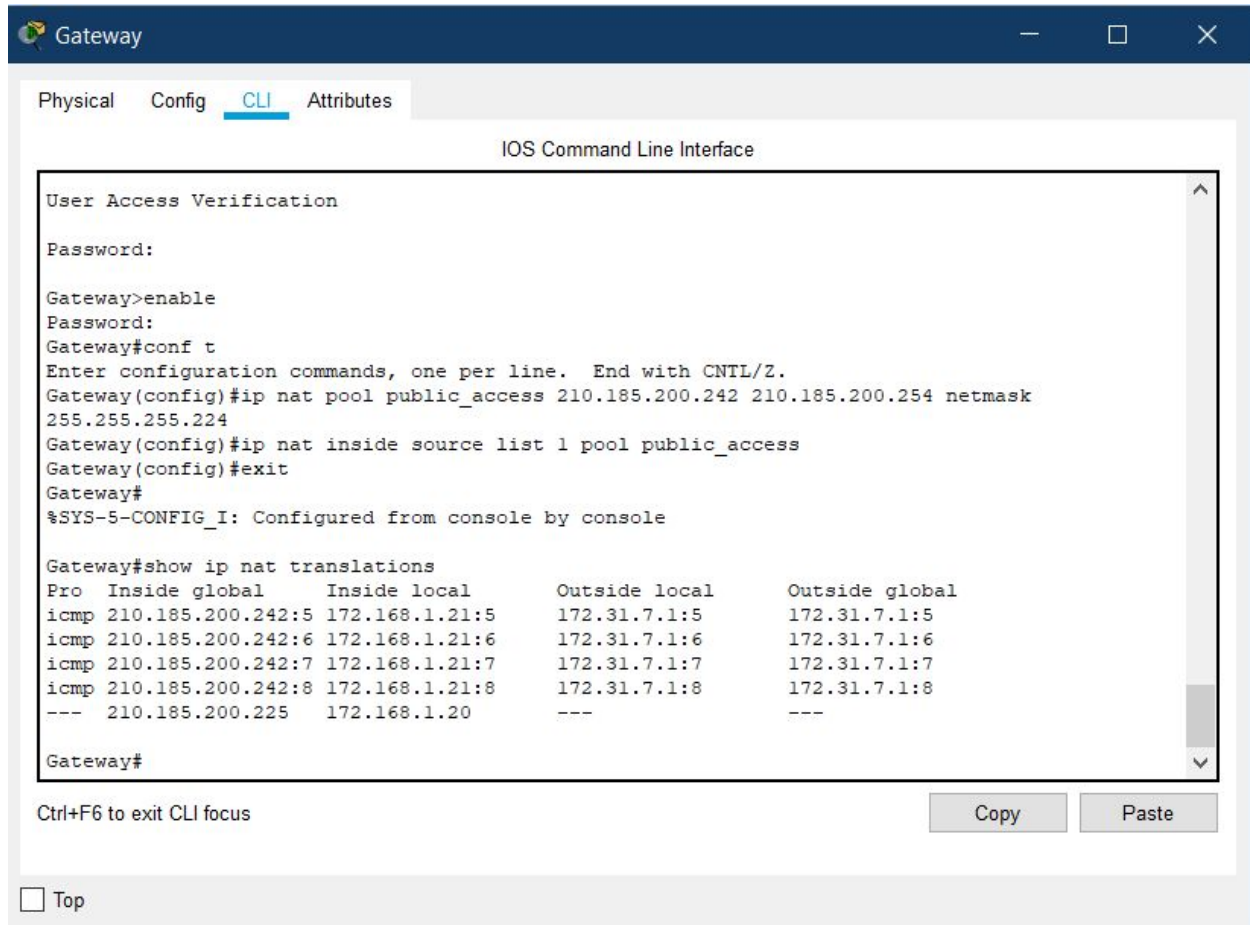
Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

C)

PC-A   —   □   X

Physical   Config   Desktop   Programming   Attributes

Command Prompt   X

```
Trying 172.31.7.1 ...Open
Unauthorized access is strictly prohibited.


User Access Verification

Password:
ISP>
ISP>
ISP>

[Connection to 172.31.7.1 closed by foreign host]
C:\>ping 172.31.7.1

Pinging 172.31.7.1 with 32 bytes of data:

Reply from 172.31.7.1: bytes=32 time=5ms TTL=254
Reply from 172.31.7.1: bytes=32 time=1ms TTL=254
Reply from 172.31.7.1: bytes=32 time=10ms TTL=254
Reply from 172.31.7.1: bytes=32 time=1ms TTL=254

Ping statistics for 172.31.7.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 10ms, Average = 4ms

C:\>
```

☐ Top

Physical   Config   Desktop   Programming   Attributes

Command Prompt   X

```
Pinging 172.31.7.1 with 32 bytes of data:

Reply from 172.31.7.1: bytes=32 time=2ms TTL=254
Reply from 172.31.7.1: bytes=32 time=1ms TTL=254
Reply from 172.31.7.1: bytes=32 time=1ms TTL=254
Reply from 172.31.7.1: bytes=32 time=7ms TTL=254

Ping statistics for 172.31.7.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 7ms, Average = 2ms

C:\>ping 172.31.7.1

Pinging 172.31.7.1 with 32 bytes of data:

Reply from 172.31.7.1: bytes=32 time=13ms TTL=254
Reply from 172.31.7.1: bytes=32 time=1ms TTL=254
Reply from 172.31.7.1: bytes=32 time=10ms TTL=254
Reply from 172.31.7.1: bytes=32 time=1ms TTL=254

Ping statistics for 172.31.7.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 13ms, Average = 6ms

C:\>
```

☐ Top

D)

Gateway — □ ✕

Physical | Config | CLI | Attributes

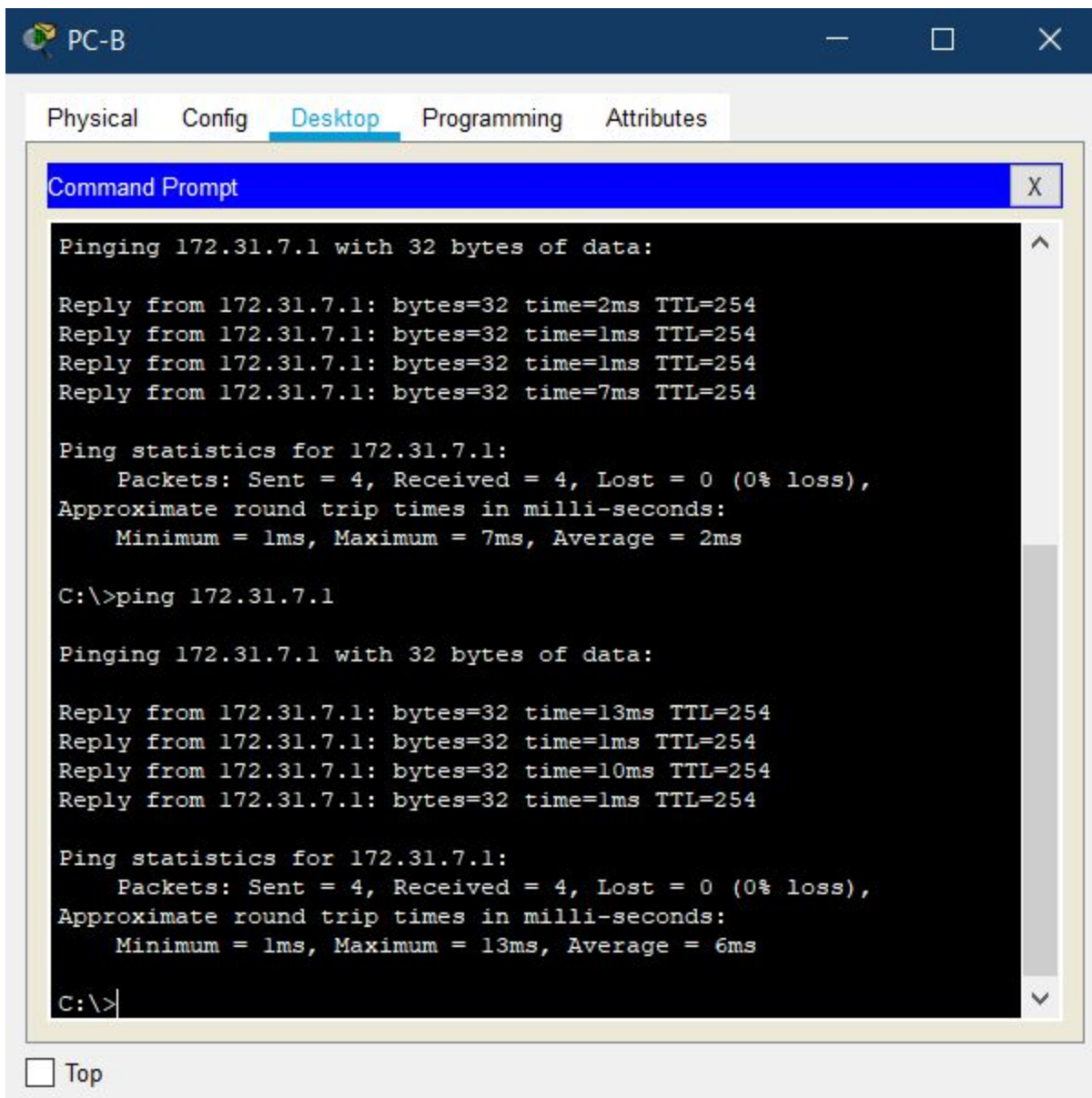IOS Command Line Interface

```
Password:
Gateway#show ip nat statistics
Total translations: 8 (0 static, 8 dynamic, 8 extended)
Outside Interfaces: Serial0/0/1
Inside Interfaces: GigabitEthernet0/1
Hits: 91  Misses: 54
Expired translations: 45
Dynamic mappings:
-- Inside Source
access-list 1 pool public_access refCount 8
 pool public_access: netmask 255.255.255.224
        start 210.185.200.242 end 210.185.200.254
        type generic, total addresses 13 , allocated 2 (15%), misses 0
Gateway#show ip nat translations
Pro  Inside global    Inside local      Outside local      Outside global
icmp 210.185.200.244:21172.168.1.21:21    172.31.7.1:21      172.31.7.1:21
icmp 210.185.200.244:22172.168.1.21:22    172.31.7.1:22      172.31.7.1:22
icmp 210.185.200.244:23172.168.1.21:23    172.31.7.1:23      172.31.7.1:23
icmp 210.185.200.244:24172.168.1.21:24    172.31.7.1:24      172.31.7.1:24
icmp 210.185.200.245:25172.168.1.20:25    172.31.7.1:25      172.31.7.1:25
icmp 210.185.200.245:26172.168.1.20:26    172.31.7.1:26      172.31.7.1:26
icmp 210.185.200.245:27172.168.1.20:27    172.31.7.1:27      172.31.7.1:27
icmp 210.185.200.245:28172.168.1.20:28    172.31.7.1:28      172.31.7.1:28

Gateway#
```

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☐ Top